

In the claims:

1. (Original) A nucleic acid having a sequence of residues that is substantially the same as or identical to a nucleotide sequence of at least 10 residues in length of SEQ ID NOS:01, 03, 05, 07, 09, 11, 13, 15, 17, 19, 21, 23, 25 or 27.

2. (Original) The nucleic acid according to Claim 1, wherein said nucleic acid has a sequence similarity of at least about 60% with a sequence of at least 10 residues in length of SEQ ID NOS: 01, 03, 05, 07, 09, 11, 13, 15, 17, 19, 21, 23, 25 or 27.

3. (Original) A nucleic acid present in other than its natural environment that encodes a chromo and/or fluorescent protein that has an amino acid sequence of: SEQ ID NOS: 02, 04, 06, 08, 10, 12, 14, 16, 18, 20, 22, 24, 26 or 28.

4. (Original) A nucleic acid that encodes a mutant protein of a protein that has an amino acid sequence of: SEQ ID NOS: 02, 04, 06, 08, 10, 12, 14, 16, 18, 20, 22, 24, 26 or 28.

5. (Original) The nucleic acid according to Claim 4, wherein said mutant protein comprises at least one point mutation as compared to its wild type protein.

6. (Original) The nucleic acid according to Claim 4, wherein said mutant protein comprises at least one deletion mutation as compared to its wild type protein.

7. (Currently Amended) A fragment of the nucleic acid according to Claim 1 selected of Claims 1 to 6.

8. (Currently Amended) An isolated nucleic acid or mimetic thereof that hybridizes under stringent conditions to a nucleic acid according to Claim 1 of Claims 1 to 7.

9. (Currently Amended) A construct comprising a vector and a nucleic acid according to Claim 1 of Claims 1 to 8.

10. (Currently Amended) An expression cassette comprising:

- (a) a transcriptional initiation region functional in an expression host;
- (b) a nucleic acid according to Claim 1 selected from the group consisting of the nucleic acids of Claims 1 to 9; and
- (c) and a transcriptional termination region functional in said expression host.

11. (Original) A cell, or the progeny thereof, comprising an expression cassette according to Claim 10 as part of an extrachromosomal element or integrated into the genome of a host cell as a result of introduction of said expression cassette into said host cell.

12. (Original) A method of producing a chromo and/or fluorescent protein, said method comprising:

growing a cell according to Claim 11, whereby said protein is expressed; and isolating said protein substantially free of other proteins.

13. (Currently Amended) A protein or fragment thereof encoded by a nucleic acid according to Claim 1 selected from the group consisting of Claims 1 to 10.

14. (Original) An antibody binding specifically to a protein according to Claim 13.

15. (Currently Amended) A transgenic cell or the progeny thereof comprising a transgene selected comprising a nucleic acid according to Claim 1 from the group consisting of a nucleic acids according to any of Claims 1 to 10.

16. (Currently Amended) A transgenic organism capable comprising a transgene selected comprising a nucleic acid according to Claim 1 from the group consisting of a nucleic acids according to any of Claims 1 to 10.

17. (Original) In an application that employs a chromo- or fluorescent protein, the improvement comprising:

employing a protein according to Claim 13.

18. (Currently Amended) In an application that employs a nucleic acid encoding a chromo- or fluorescent protein, the improvement comprising:

employing a nucleic acid according to Claim 1 ~~Claims 1 to 10~~.

19. (Currently Amended) A kit comprising a nucleic acid according to Claim 1 ~~Claims 1 to 10~~ and instructions for using said nucleic acid.